

## (12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization  
International Bureau



(43) International Publication Date  
15 March 2001 (15.03.2001)

PCT

(10) International Publication Number  
**WO 01/18204 A1**

(51) International Patent Classification<sup>7</sup>: C12N 15/12,  
15/85, C07K 14/705, 16/28, C12Q 1/68, G01N 33/50,  
33/53, A61K 38/17

[US/US]; 29 Twin Bridge Road, Madison, CT 06443  
(US); KOTELIANSKI, Victor [RU/US]; 4 Charlesgate  
East, Apartment 405, Boston, MA 02215 (US). DE  
FOUGEROLLES, Antonin [CA/US]; 11 Lancaster  
Terrace, Brookline, MA 02446 (US); CARULLI, John  
[US/US]; 9 Harris Drive, Southborough, MA 01772  
(US); HESSENN, Catherine [US/US]; 35 Otis Hill Road,  
Hingham, MA 02043 (US).

(21) International Application Number: PCT/US00/24220

(74) Agent: ELRIFI, Ivor, R.; Mintz, Levin, Cohn, Ferris,  
Glovsky and Popeo, P.C., One Financial Center, Boston,  
MA 02111 (US).

(22) International Filing Date: 31 August 2000 (31.08.2000)

(81) Designated States (national): AE, AG, AL, AM, AT, AU,  
AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ,  
DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR,  
HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR,  
LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ,  
NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM,  
TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW.

(25) Filing Language: English

(84) Designated States (regional): ARIPO patent (GH, GM,  
KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW), Eurasian  
patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European  
patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE,  
IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG,  
CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG).

(26) Publication Language: English

## Published:

- With international search report.
- Before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments.

(30) Priority Data:

60/152,383	3 September 1999 (03.09.1999)	US
60/172,909	21 December 1999 (21.12.1999)	US
60/183,578	18 February 2000 (18.02.2000)	US
09/651,200	30 August 2000 (30.08.2000)	US

(63) Related by continuation (CON) or continuation-in-part (CIP) to earlier applications:

US	60/152,383 (CIP)
Filed on	3 September 1999 (03.09.1999)
US	60/172,909 (CIP)
Filed on	21 December 1999 (21.12.1999)
US	60/183,578 (CIP)
Filed on	18 February 2000 (18.02.2000)
US	Not furnished (CIP)
Filed on	30 August 2000 (30.08.2000)

(71) Applicants (for all designated States except US): CURA-GEN CORPORATION [US/US]; 555 Long Wharf Drive, 11th Floor, New Haven, CT 06511 (US). BIOGEN, INC. [US/US]; 14 Cambridge Center, Cambridge, MA 02142 (US).

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(72) Inventors; and  
(75) Inventors/Applicants (for US only): GREEN, Cynthia

WO 01/18204 A1

(54) Title: POLYNUCLEOTIDES ENCODING MEMBERS OF THE HUMAN B LYMPHOCYTE ACTIVATION ANTIGEN B7 FAMILY AND POLYPEPTIDES ENCODED THEREBY

(57) Abstract: The present invention provides novel isolated BLAA polynucleotides and the membrane-associated or secreted polypeptides encoded by the BLAA polynucleotides. Also provided are the antibodies that immunospecifically bind to a BLAA polypeptide or any derivative, variant, mutant or fragment of the BLAA polypeptide, polynucleotide or antibody. The invention additionally provides methods in which the BLAA polypeptide, polynucleotide and antibody are utilized in the detection and treatment of a broad range of pathological states, as well as to other uses.